



Norbord NV
Eikelaarstraat 33
3600 Genk
Belgium

DoP ref: NGOSB4DoPv4

EN 13986:2004 +A1:2015

1161

08

E1

OSB/4 (EN300) 6mm to 32mm

Sterling OSB4 zero

Heavy duty; structural use in humid conditions

Essential characteristics	Performance							
	6 to 10		>10 to <18		18 to 25		>25 to 32	
Thickness range	0	90	0	90	0	90	0	90
Characteristic Strength (N/mm²)								
- Bending	24.5	13.0	23.0	12.2	21.0	11.4	NPD	NPD
- Compression	18.1	14.3	17.6	14.0	17.0	13.7	NPD	NPD
- Tension	11.9	8.5	11.4	8.2	10.9	8.0	NPD	NPD
- Panel Shear	6.9		6.9		6.9		NPD	
- Planar shear	1.1		1.1		1.1		NPD	
Mean Stiffness (MOE) (N/mm²)								
- Tension	4300	3200	4300	3200	4300	3200	NPD	NPD
- Compression	4300	3200	4300	3200	4300	3200	NPD	NPD
- Bending	6780	2680	6780	2680	6780	2680	NPD	NPD
- Panel Shear	1090		1090		1090		NPD	
- PlanarShear	60		60		60		NPD	
Characteristic strength under point load F_{max,k} (kN) <i>(for floors and roofs)</i>	NPD		NPD		NPD		NPD	
Mean stiffness under point load, R (N/mm²) <i>(for floors and roofs)</i>	NPD		NPD		NPD		NPD	
Characteristic serviceability strength under point load F_{ser,k} (kN) <i>(for floors and roofs)</i>	NPD		NPD		NPD		NPD	
Racking resistance <i>(for walls)</i>	NPD		NPD		NPD		NPD	
Soft Body Impact resistance Fllors/Roofs Walls	NPD		NPD		NPD		NPD	
Embedment strenght ⁽¹⁾	NPD		NPD		NPD		NPD	
Reaction to fire (excluding floorings)	D-s2,d0 ⁽²⁾ D-s2,d2 ⁽³⁾ E ⁽⁴⁾		D-s2,d0 ⁽²⁾ E ⁽⁴⁾		D-s2,d0 ⁽²⁾ E ⁽⁴⁾		D-s2,d0 ⁽²⁾ E ⁽⁴⁾	
Reaction to fire (floorings)	Dfl-s1 ⁽²⁾ Efl ⁽⁴⁾		Dfl-s1 ⁽²⁾ Efl ⁽⁴⁾		Dfl-s1 ⁽²⁾ Efl ⁽⁴⁾		Dfl-s1 ⁽²⁾ Efl ⁽⁴⁾	

Water vapour permeability μ	NPD	NPD	NPD	NPD	
Release of formaldehyde	E1	E1	E1	E1	
Release (content) of pentachlorophenol (PCP)	$\leq 5\text{ppm}$	$\leq 5\text{ppm}$	$\leq 5\text{ppm}$	$\leq 5\text{ppm}$	
Airborne sound insulation (surface mass) (R)	NPD	NPD	NPD	NPD	
Sound absorption Frequency range 250Hz to 500Hz (α)	0.1	0.1	0.1	0.1	
Sound absorption Frequency range 1000Hz to 2000Hz (α)	0.25	0.25	0.25	0.25	
Thermal conductivity λ	0.13	0.13	0.13	0.13	
Durability					
Internal bond (N/mm²)	0.50	0.45	0.40	0.35	
Swelling in thickness (%)	12	12	12	12	
Moisture resistance Internal bond after boil test (%)	NPD	NPD	NPD	NPD	
Internal bond after cyclic test (N/mm²)	NPD	NPD	NPD	NPD	
Bending strength after cyclic test – major axis (N/mm²)	15	14	13	6	
Mechanical (Creep k_{def}) Service class 1	1.5	1.5	1.5	1.5	
Mechanical (Creep k_{def}) Service class 2	2.25	2.25	2.25	2.25	
Mechanical (Duration of load k_{mod})	Action Mode				
	Permanent	Long Term	Medium Term	Short Term	Instantaneous
Service class 1	0.4	0.5	0.7	0.9	1.1
Service class 2	0.3	0.4	0.55	0.7	0.9
Biological	Use classes 1 & 2				

- (1) Embedment strength can be calculated according to EN 1995-1-1, taking the OSB panel thickness and the diameter of the used fastener in account.
- (2) Minimum thickness 18mm – with an open air gap behind the OSB. (End use of condition)
Minimum thickness 15mm – with a closed air gap behind the OSB. (End use of condition)
Minimum thickness 9mm – without an air gap behind the OSB. (End use of condition)
- (3) Minimum thickness 9mm – with a closed or an open air gap not more than 22mm behind the OSB. (End use of condition)
- (4) Minimum thickness 3mm – Any (End use of condition)